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PCT/EP 00 / 09291

REC'D 01 NOV 2000
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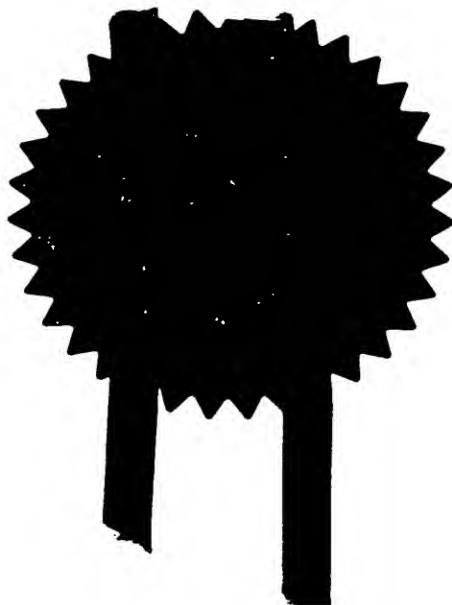
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Description 28

Claim(s) 11

Abstract 1

Drawing(s) 10 + 10 *pl*

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Priority Documents

Translations of priority documents

Statement of inventorship and right
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Request for preliminary examination
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Request for substantive examination
(*Patent Form 10/77*)

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11.

I/We request the grant of a patent on the basis of this application



Signature Christopher Gerard Pike
AGENT FOR THE APPLICANTS

21 August 2000

12. Name and daytime telephone number of
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Dr. Christopher G. Pike
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Notes

and usage of the dispenser may thus be displayed to the patient to enable the better management of their medical condition. The information may further be stored in a memory such that it may be recalled at a later time to enable historic analysis of the progress of the condition and effect of the treatment. Dispensers
5 employing electronic data management systems have been proposed for this purpose.

It is desirable to have a system which allows for the remote monitoring of the medical condition of plural patients having similar medical conditions and
10 undergoing similar treatment or prescribing regimes. This monitoring would allow for an overview picture to be obtained of the degree and nature of patient compliance with the treatment or prescribing regime. The effectiveness of the treatment or prescribing regime in the group of patients may also be monitored over time. Where different sets of plural patients are undertaking different
15 treatment or prescribing regimes the method would further enable cross-comparison of the effectiveness of the different regimes. It is further desirable that the system allows for selective access to the collected data. For example, the patient and their doctor may be allowed exclusive access to the individual patient data. Healthcare managers on the other hand may be enabled to view
20 overview data, but not data relating to individuals.

The Applicants have now developed an improved system for remotely collecting and providing selective access to medical data relevant to plural patients having related medical conditions. The system employs plural electronic data collectors,
25 each of which is assigned to a particular patient. Associated with each electronic data collector there is provided a communicator for communicating with an endpoint to a remote network computer system to enable transfer of patient data thereto. The data is transferable to a first database which is specific to the patient and to a second database which is not patient-specific but is specific to
30 the medical condition being monitored. The system enables different levels of security to be applied to access to each database. First and second secure access gateways are provided permitting access to the first and second databases in response to first and second user authorisation commands.

In one aspect, the patient electronic data collector collects patient data on a regular basis. In another aspect, the patient electronic data collector collects patient data on a continuous basis.

- 5 The patient data is relevant to the patient's medical condition. The data may therefore comprise diagnostic data which is of use in diagnosing the patient's ongoing condition. The data may also comprise compliance data which is of use in assessing a patient's compliance with a particular treatment or prescription regime. It will be appreciated, particularly in the light of the further description
- 10 presented below, that in aspects herein the patient data may be selectively transferred to the first and second database such that not all patient data is necessarily transferred to both databases.

- 15 The system is of most application where the plural patients have related medical conditions. This is also likely to mean that similar or at least related diagnostic data will be collected from each patient. The patients may also be on similar, related or identical treatment or prescribing regimes. Cross-comparison of the effectiveness of different treatment or prescribing regimes may be undertaken. The system may also be employed in a clinical trial situation wherein the
- 20 prescription regime for at least some of the patients involves the use of a placebo.

- 25 The patient electronic data collectors are physically, and potentially geographically distant from the entrapment to the network computer system. It is envisaged that the each electronic data collector will be kept under the control of an individual patient. In embodiments, the data collector may be worn by the patient or be a handheld device carried by the patient. Examples of patient-wearable devices would include belt attachable devices, devices in the form of watches for wrist or leg attachment and devices attachable as jewellery. Suitable
- 30 body attachment means will be incorporated as required.

Any patient electronic data collector may in a preferred aspect be integrated with a system for the delivery of medicament. The medicament delivery system will typically comprise a medicament container and a dispensing mechanism for

In one preferred aspect, the communicator communicates wirelessly with the entrypt to the network computer system.

5 Suitably, the data is communicable between the patient electronic data collector and the network computer system in encrypted form. All suitable methods of encryption or partial encryption are envisaged. Password protection may also be employed.

10 In one aspect, the patient data is continuously communicable between the patient electronic data collector and the network computer system. In another aspect, the patient data is communicable in packet form between the patient electronic data collector and the network computer system.

15 In one aspect, the network computer system comprises a public access network computer system. The Internet is one suitable example of a public access network computer system, wherein the entrypt can be any suitable entrypt thereto including gateways managed by an Internet service provider. The public access network computer system may also form part of a telecommunications system, which may itself be either a traditional copper wire system, a cellular
20 system or an optical or microwave network.

In another aspect, the network computer system comprises a private access network computer system and the entrypt is a secure gateway. The private access network system may for example, comprise an Intranet or Extranet which
25 is maintained by a private organisation.

30 The network computer system is typically located at or under the control of a specialist healthcare data manager. The data manager may for example be associated with a healthcare provider or manager such as a doctor's practice, a hospital, a healthcare management centre or a pharmaceutical company. It is an advantage of the system herein, that the network computer system may be located geographically distant from the patient.

35 The first database comprises medical condition data which is specific to a particular patient. It will thus be appreciated that over a period of time various

healthcare professional links may be provided to the sites of professional interest groups.

5 The first secure access gateway permits access to the first patient-specific database in response to a first user authorisation command. The second secure access gateway permits access to the second condition-specific database in response to a second user authorisation command. The first and second secure access gateways may be arranged to be entirely distinct from each other. Alternatively, the first and second secure access gateways may be 10 coupled or arranged in a series fashion. A further secure access gateway may additionally be provided through which access a user must first gain access in order to gain access to the first and second secure access gateways.

15 The secure gateways will typically provide password protection and the different user authorisation commands will take the form of different passwords. The gateways or any other part of the system may also incorporate a firewall or suitable encryption means.

20 The first and second user authorisation commands will usually be distinct, but embodiments can be envisaged when a single authorisation command gains access through both gateways.

25 Suitably, the authorised users are selected from the group consisting of the patient, a healthcare professional such as a doctor or nurse, a pharmacist, an emergency assistance provider, a research professional, a database manager and any combinations thereof.

30 Suitably, the first and second secure access gateways allow for different levels of access authorisation to the first and second databases to be assigned to different authorised users.

35 The users that are provided access rights to the first and second databases will probably be different but members of the user groups may overlap. The first database clearly contains information which may be sensitive to the patient and user access may thus be restricted to just the patient and their doctor. The

In one aspect, the remote datasource comprises data relating to ambient environmental conditions such as weather conditions, or pollution, smog and pollen levels.

5 In another aspect, the remote datasource comprises a database of prescribable medicaments. The database may be arranged to focus on medicaments of particular applicability to the patient's condition and to be the subject of regular update as new medicaments are released to the market.

10 The remote datasource may, for example be managed by a medicament prescriber, for example a doctor's practice. Information transferred from the medicament prescriber may thus, comprise changes to prescription details, automatic prescription updates or training information.

15 In another aspect, the remote datasource is managed by a pharmacy. Information transferred from the pharmacy may thus, comprise information relating to the medicament product.

20 In a further aspect, the remote datasource is a manufacturer of medicament or medicament delivery systems. Information transferred to the system may thus, comprise product update information.

25 In a further aspect, the remote datasource is a research establishment. In a clinical trial situation, information may thus be transferred relating to the trial protocol.

30 Suitably, the patient electronic data collector further comprises a patient electronic data management system comprising a memory for storage of data; a microprocessor for performing operations on said data; and a transmitter for transmitting a signal relating to the data or the outcome of an operation on the data. The memory may comprise a non-volatile memory chip (e.g. an EEPROM) which is capable of storing data when the electronic data collector is turned off.

In another aspect, the system (device) is provided with an embedded network server to enable it to be comprised directly within the network system, typically using IP protocol. The embedded network server will have hardware and software components and for example comprise an HTTP (web) server, an FTP (file) server or an SMTP (mail) server. The embedded network server will typically be provided with a unique network address such as a web-site address, an e-mail address or a file transfer protocol address. The so-enabled system (device) may also have the capability to form local area networks with other similarly enabled systems (devices) to enable local transfer of data therebetween.

Suitably, the communicator communicates with network computer system via a second communications device. The second communications device may itself comprise an embedded web server. Preferably, the second communications device is a telecommunications device, more preferably a cellular phone or pager. Preferably, the communicator communicates with the second communications device using spread spectrum radiofrequency signals. A suitable spread spectrum protocol is the Bluetooth (trade mark) standard which employs rapid (e.g. 1600 times a second) hopping between plural frequencies (e.g. 79 different frequencies). The protocol may further employ multiple sending of data bits (e.g. sending in triplicate) to reduce the effect of interference.

In one aspect, the network computer system comprises a public access network computer system. The Internet is one suitable example of a public access network computer system, wherein the entrypoint thereto is typically managed by an Internet service provider. The public access network computer system may also form part of a telecommunications system, which may itself be either a traditional copper wire system, a cellular system or an optical or microwave network.

In another aspect, the network computer system comprises a private access network computer system typically comprising a private entrypoint system. The private access network system may for example, comprise an intranet or extranet which may for example, be maintained by a health service provider or

In a further aspect, the sensor comprises a temperature sensor for sensing the temperature profile associated with the breath of a user. The temperature of the inhaled and exhaled part of the breath cycle varies and may, thus, be used as a measurement tool.

5

In a further aspect, the sensor comprises a moisture sensor for sensing the moisture profile associated with the breath of a user. The moisture content of the inhaled and exhaled part of the breath cycle varies and this also may be used as a measurement tool.

10

In a further aspect, the sensor comprises a gas sensor for sensing the oxygen or carbon dioxide profile associated with the breath of a user. The chemical profile of the inhaled and exhaled part of the breath cycle varies and this further may be used as a measurement tool.

15

Preferably, the breath data includes breath cycle data or peak flow data.

In one aspect, the system is suitable for the delivery of respirable medicament and additionally comprises a sensor which senses the breath of a user, wherein the sensor communicates breath data to the electronic data management system.

20

Preferably, the system additionally comprises an actuator for actuating the dispensing mechanism, said actuator being actuatable in response to a trigger signal from the transmitter.

25

Preferably, the electronic data management system includes a predictive algorithm or look-up table for deriving from the breath data when to transmit the trigger signal. For example, a real-time analysis of the patient breath waveform may be made and the trigger point derived by reference to that analysed waveform.

30

In one preferred aspect, the medicament container is an aerosol container and the dispensing mechanism is an aerosol valve.

35

electronic data collector. Preferably, the sensor measures the blood pressure of the patient.

5 According to another aspect of the present invention there is provided a method for collecting and providing selective user access to medical data relevant to plural patients having related medical conditions comprising locally collecting patient data relevant to each patient's medical condition in electronic form; communicating with an endpoint to said network computer system to enable transfer of said patient data to a first patient-specific database and to a second condition-specific database of said network computer system; and permitting first 10 authorised user access to the first patient-specific database via a first secure access gateway, and/or permitting second authorised user access to the second condition-specific database via a second secure access gateway.

15 Suitably, the method comprises collecting the data on a regular basis.

Suitably, the method comprises collecting the data on a continuous basis.

20 Suitably, the method comprises communicating, preferably wirelessly, the data in encrypted form.

In one aspect, the data is continuously communicable. In another aspect, the data is communicable in packet form.

25 Suitably, the method comprises permitting different levels of access to the data to different authorised users.

30 In one aspect the method is suitable for remotely assessing a patient's condition and remotely prescribing therefor and additionally comprises a first authorised user communicating a prescription authorisation command to the patient-specific network address; a second authorised user receiving said prescription authorisation command from the patient-specific network address; and said second authorised user preparing the prescription based on the prescription authorisation.

network computer system. The authorised user inquiry originates from any suitable authorised user. The system may be configured to allow for selective access to the patient database dependent upon level of user authorisation.

5 Embodiments of systems according to the invention will now be described with reference to the accompanying drawings in which:

10 Figure 1. is a schematic representation of a first system in accord with the present invention in which a patient electronic data collector forms part of a medicament delivery system;

15 Figure 2. is a schematic representation of a second system in accord with the present invention in which a patient electronic data collector forms part of a medicament delivery system;

20 Figures 3 and 4 are schematic representations of third and fourth systems in accord with the present invention in which the patient remote assessment system integrates with a system for electronic prescription of medicament;

25 Figure 5. is a system diagram of a third system in accord with the present invention;

30 Figure 6. is a system diagram of a central controller unit for use in accord with the present invention;

35 Figures 7. and 8. are schematic diagrams of first and second database structures for use in accord with the present invention;

40 Figure 9. is a system diagram of a patient electronic data manager for use in accord with the present invention;

45 Figure 10. is a flow diagram illustrating the steps of data collection and data communication to the network in accord with the present invention; and

computer system 50 comprises a secure network computer system which will typically be under the control of a healthcare data manager. Remote information sources 60, 62, 64, 66, 68 also have access to the network. In more detail, the remote information sources comprise a medicament prescriber 60, a pharmacy 62, a weather monitoring station 64, a pollution monitoring station 66 and a medicament manufacturer 68. Two-way data transfer is possible between the electronic data management system and the network computer system 50 via the communications transceiver 40. Information transfer is thus possible between the electronic data management system and any of the remote information sources 60, 62, 64, 66, 68.

Figure 2. shows a variation of the system of Figure 1. The system comprises standard-form metered dose inhaler for the delivery of inhalable medicament comprising tubular housing 110, an aerosol container 112 and dispensing outlet 114. Operation of the inhaler is as described above with reference to Figure 1.

The dispenser includes an electronic data management and communications system 140 comprised within the housing 110. Display 130 allows for limited display data from the electronic data management system. The dispenser readily communicates via communications system 140 to palmtop computer 170. The communication is via spread spectrum radiofrequency signals operable over a relatively short range (e.g. up to ten metres). The palmtop computer 170 has a more sophisticated display 172 including a graphical user interface comprising menu-entry screens from which selections may be made using toggle menu-button 174.

The patient accesses the electronic data management system 140 of the dispenser through the palmtop computer 170. The palmtop computer 170 itself can communicate through a telecommunications link with network computer system 150. The network computer system 150 comprises a secure Extranet computer system. As in Figure 1, remote information sources may also have access to the Extranet. Two-way data transfer is possible between the electronic data management system and the network computer system 150 via the communications links with the palmtop computer 170. Information transfer is

system of the pharmacist 362 or be a dedicated secure prescription system accessible only to the prescriber and the pharmacist.

5 The system of Figure 4 is employed in the remote assessment of a patient and electronic prescribing therefor as follows. The patient data collector 340 communicates data relating to the medical condition of the patient to the network computer system 350. The medicament prescriber 360 accesses this data and makes a judgement as to prescription needs. If a new prescription is needed the prescriber sends a 'prescription authorisation' signal to the second network computer system 354. The pharmacist 362 then accesses the network computer system to receive the 'prescription authorisation' signal which authorises the pharmacist to make up the prescription for the patient.

10 Figure 5. shows a representative system herein comprising plural patient electronic data collectors 440a-c, each of which would be under the control of a different patient. Associated with each patient electronic data collector 440a-c there is a patient communicator 442a-c (e.g. a modem) which is capable of communication with a network computer system 450. The system also comprises an authorised user interface 480 having associated authorised user communicator 482 which is capable of communicating with the network computer system 450. Central controller unit 490 is in two-way communication with the network computer system 450.

15 The system of Figure 5. is shown in patient 'data upload mode' wherein patient data 444a-c is being communicated to the network. It may be appreciated that any patient can also communicate requests for data to the network 450 and receive responses thereto via the patient communicator 442a-c. The system is also shown in authorised user 'enquiry mode' in which a database enquiry 484 is communicated to the network computer system 450 and a response received 486 via the authorised user communicator 482 to the authorised user interface 480.

20 The system of Figure 5. is shown in patient 'data upload mode' wherein patient data 444a-c is being communicated to the network. It may be appreciated that any patient can also communicate requests for data to the network 450 and receive responses thereto via the patient communicator 442a-c. The system is also shown in authorised user 'enquiry mode' in which a database enquiry 484 is communicated to the network computer system 450 and a response received 486 via the authorised user communicator 482 to the authorised user interface 480.

25 Figure 6. shows the structure of the central controller 590 in more detail. The central controller includes a data storage device 591, central processor (CPU)

601a-n which comprises patient data relating to medical condition which has been collected from each patient, and a patient personal data database 602a-n which comprises patient personal data including medical history data. Different levels of user authorisation may be established to allow different users to access each part of the partitioned database.

Also in more detail, Figure 8 shows a different database structure. The first part of the database structure comprises plural patient condition and personal data databases 601a-n which comprises patient data relating to medical condition which has been collected from each patient and patient personal data. The second part of the database structure comprises patient data relating to medical condition which has been collected from each patient but with no patient identification or medical history details. Again different levels of user authorisation may be established to allow different users to access each part of the database structure.

Figure 9 shows a patient electronic data collector 810 comprised with a respiratory drug delivery system (not shown). The electronic data collector 810 comprises a central processor unit (CPU) 821; RAM 822; ROM 823 and a cryptographic processor 824. The CPU 821 receives patient data from sensor 815 which may for example be a breath sensor or a sensor detecting actuation of the drug delivery system. The received data is storable in data storage device 825 which includes two databases, one for storage of patient medical data 826 and one for storage of personal patient data 828. The CPU 821 is associated with man machine interface 820 for receipt of patient input commands and display driver 832 and display 830 for display of information to the patient. The CPU 821 is further associated with communications port 840 which links via modem 842 to the central controller 890 of a network computer system (not shown).

It will be appreciated that the basic structure of the patient electronic data collector 810 of Figure 9 can act as an authorised data communicator for making enquiry requests to the databases on the network computer system and receiving responses therefrom. It will also be appreciated that the structure of the patient electronic data collector could be adapted by removal of the sensor 815

communications link 1044. Prior to exit of the system an electronic billing request is transmitted to the user 1042. Payment may either occur instantaneously by deduction of funds from the authorised user's account or payment may become due at a later date.

5

The medicament delivery system aspect of the invention is in one aspect suitable for dispensing medicament for the treatment of respiratory disorders such as disorders of the lungs and bronchial tracts including asthma and chronic obstructive pulmonary disorder (COPD).

10

Appropriate medicaments may thus be selected from, for example, analgesics, e.g., codeine, dihydromorphine, ergotamine, fentanyl or morphine; anginal preparations, e.g., diltiazem; antiallergics, e.g., cromoglycate (eg as the sodium salt), ketotifen or nedocromil (eg as the sodium salt); antiinfectives e.g.,

15

cephalosporins, penicillins, streptomycin, sulphonamides, tetracyclines and pentamidine; antihistamines, e.g., methapyrilene; anti- inflammatories, e.g., beclomethasone (eg as the dipropionate ester), fluticasone (eg as the propionate ester), flunisolide, budesonide, rofleponide, mometasone eg as the furoate

20

ciclesonide, triamcinolone (eg as the acetonide) or 6 α , 9 α -difluoro-11 β -hydroxy-16 α -methyl-3-oxo-17 α -propionyloxy-androsta-1,4-diene-17 β -carbothioic acid S-(2-oxo-tetrahydro-furan-3-yl) ester; antitussives, e.g., noscapine; bronchodilators, e.g., albuterol (eg as free base or sulphate), salmeterol (eg as xinafoate), ephedrine, adrenaline, fenoterol (eg as hydrobromide), formoterol (eg as fumarate), isoprenaline, metaproterenol, phenylephrine,

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phenylpropanolamine, pirbuterol (eg as acetate), reproterol (eg as hydrochloride), rimiterol, terbutaline (eg as sulphate), isoetharine, tulobuterol or 4-hydroxy-7-[2-[[2-[[3-(2-phenylethoxy)propyl]sulfonyl]ethyl]amino]ethyl-2(3H)-benzothiazolone; adenosine 2a agonists, eg 2R,3R,4S,5R)-2-[6-Amino-2-(1S-hydroxymethyl-2-phenyl-ethylamino)-purin-9-yl]-5-(2-ethyl-2H-tetrazol-5-yl)-

30

tetrahydro-furan-3,4-diol (e.g. as maleate); α_4 integrin inhibitors eg (2S)-3-[4-(((4-(aminocarbonyl)-1-piperidiny]carbonyl]oxy)phenyl)-2-(((2S)-4-methyl-2-[(2-methylphenoxy) acetyl]amino}pentanoyl)amino] propanoic acid (e.g as free acid

claims and may include, by way of example and without limitation, one or more of the following claims:

5. A system according to any of claims 1 to 3, wherein said patient data comprises compliance data for use in assessing each patient's compliance with a treatment or prescribing regime.

5 6. A system according to any of claims 1 to 5, wherein each patient has a similar or identical medical condition.

10 7. A system according to any of claims 1 to 6, wherein each patient is on a similar or identical treatment or prescribing regime.

8. A system according to any of claims 1 to 7, wherein each patient electronic data collector is under the control of an individual patient.

15 9. A system according to any of claims 1 to 8, wherein any patient electronic data collector is integrated with a system for the delivery of medicament.

20 10. A system according to claim 9, wherein the medicament delivery system provides respirable delivery of medicament to the patient.

11. A system according to claim 9, wherein the medicament delivery system provides injectable delivery of medicament to the patient.

25 12. A system according to claim 9, wherein the medicament delivery system is an implant in the body of the patient.

30 13. A system according to any of claim 9 to 11, wherein the patient electronic data collector and the system for delivery of medicament are comprised within a handheld device.

14. A system according to any of claims 1 to 13, wherein the communicator is capable of communicating wirelessly with the entrapoint to the network computer system.

24. A system according to any of claims 1 to 22, wherein the first and second secure access gateways are coupled or arranged in series.

5 25. A system according to any of claims 1 to 24, wherein the secure access gateways are password protected.

26. A system according to any of claims 1 to 25, wherein the first and second user authorisation commands are distinct.

10 27. A system according to any of claims 1 to 25, wherein the first and second user authorisation commands are identical.

15 28. A system according to any of claims 1 to 27, wherein the authorised users are selected from the group consisting of the patient, a healthcare professional, a pharmacist, an emergency assistance provider, a research professional, a database manager and any combinations thereof.

20 29. A system according to any of claims 1 to 28, wherein access to either one or both of the databases involves payment of a fee through an electronic payment means.

25 30. A system according to any of claims 1 to 29, wherein communication of patient data to either one or both of the databases results in award of an incentive payment through an electronic payment means.

31. A system according to any of claims 1 to 30, enabling the patient to define permissions or authorisations at the time of data collection, data transfer, data storage and data access.

30 32. A system according to any of claims 1 to 31, wherein information from a remote datasource is made available to the network computer system.

35 33. A system according to claim 32, wherein said remote datasource comprises data relating to ambient environmental conditions.

a communicator for communicating with an entrypt to a network computer system to enable communication of data between the network computer system and the authorised user electronic data management system.

5 39. A system according to claim 38 for the remote assessment of a patient's medical condition and remote prescription therefor comprising

a first authorised user data communicator capable of communicating a prescription authorisation command to the network computer system; and

10

a second authorised user data communicator capable of receiving a prescription authorisation command from the network computer system.

15 40. A system according to any of claims 1 to 39, wherein any communicator employs radiofrequency or optical signals.

41. A system according to any of claims 1 to 40, wherein any communicator communicates with the network computer system via a gateway thereto.

20

42. A system according to any of claims 1 to 40, wherein the communicator includes an embedded network server.

25 43. A system according to any of claims 1 to 42, wherein the communicator communicates with the network computer system via a second communications device having telecommunications capability.

44. A system according to claim 43, wherein the telecommunications device comprises a cellular phone or pager.

30

45. A system according to any of claims 42 to 44, wherein the communicator communicates with the second communications device using spread spectrum radiofrequency signals.

55. A system according to claim 52, wherein the sensor comprises an airflow sensor for sensing the airflow profile associated with the breath of a user.

56. A system according to claim 52, wherein the sensor comprises a temperature sensor for sensing the temperature profile associated with the breath of a user.

57. A system according to claim 52, wherein the sensor comprises a moisture sensor for sensing the moisture profile associated with the breath of a user.

58. A system according to claim 52, wherein the sensor comprises a gas sensor for sensing the oxygen or carbon dioxide profile associated with the breath of a user.

59. A system according to any of claims 51 to 58, wherein said breath data includes breath cycle data.

60. A system according to any of claims 51 to 58, wherein said breath data includes peak flow data.

60. A system according to any of claims 1 to 50, wherein the plural patients have related cardiovascular conditions and each patient electronic data collector additionally comprises a sensor which senses the cardiovascular activity of a patient, wherein the sensor communicates cardiovascular data to the patient electronic data collector.

61. A system according to claim 60, wherein said sensor measures the blood pressure of the patient.

62. A method for collecting and providing selective user access to medical data relevant to plural patients having related medical conditions comprising

locally collecting patient data relevant to each patient's medical condition in electronic form;

said second authorised user preparing the prescription based on the prescription authorisation.

70. A method according to any of claims 62 to 68, additionally comprising

a first authorised user communicating a prescription authorisation command to a pharmacy network computer system;

a second authorised user receiving said prescription authorisation command from the pharmacy network computer system; and

said second authorised user preparing the prescription for the patient based on the prescription authorisation.

71. A method according to either of claims 69 or 70, wherein the first authorised user communicates the prescription authorisation in response to a 'update prescription' alerting signal visible at a patient-specific network address on the network computer system.

72. A network computer system for use with the system according to any of claims 1 to 61 comprising

a network address;

associated with said network address, a data controller unit capable of receiving patient data in electronic form;

associated with said controller unit, a first patient-specific database and a second condition-specific database for storing said patient data; and

an authorised user inquiry system comprising either or both of

(a) a first secure access gateway permitting access to the first patient-specific database in response to a first user authorisation command;

ABSTRACT

There is provided a system for collecting and providing selective access to medical data relevant to plural patients having related medical conditions. The system comprises a network computer system and associated with the network computer system a first patient-specific database and a second condition-specific database. Remote from the network computer system there are provided plural patient electronic data collectors, each for collecting patient data relevant to a particular patient's medical condition. Associated with each patient electronic data collector, there is a communicator for communicating with an endpoint to the network computer system to enable transfer of said patient data to the first patient-specific database and to the second condition-specific database. The system includes a first secure access gateway permitting access to the first patient-specific database in response to a first user authorisation command and a second secure access gateway permitting access to the second condition-specific database in response to a second user authorisation command.

Fig 2.

2/10

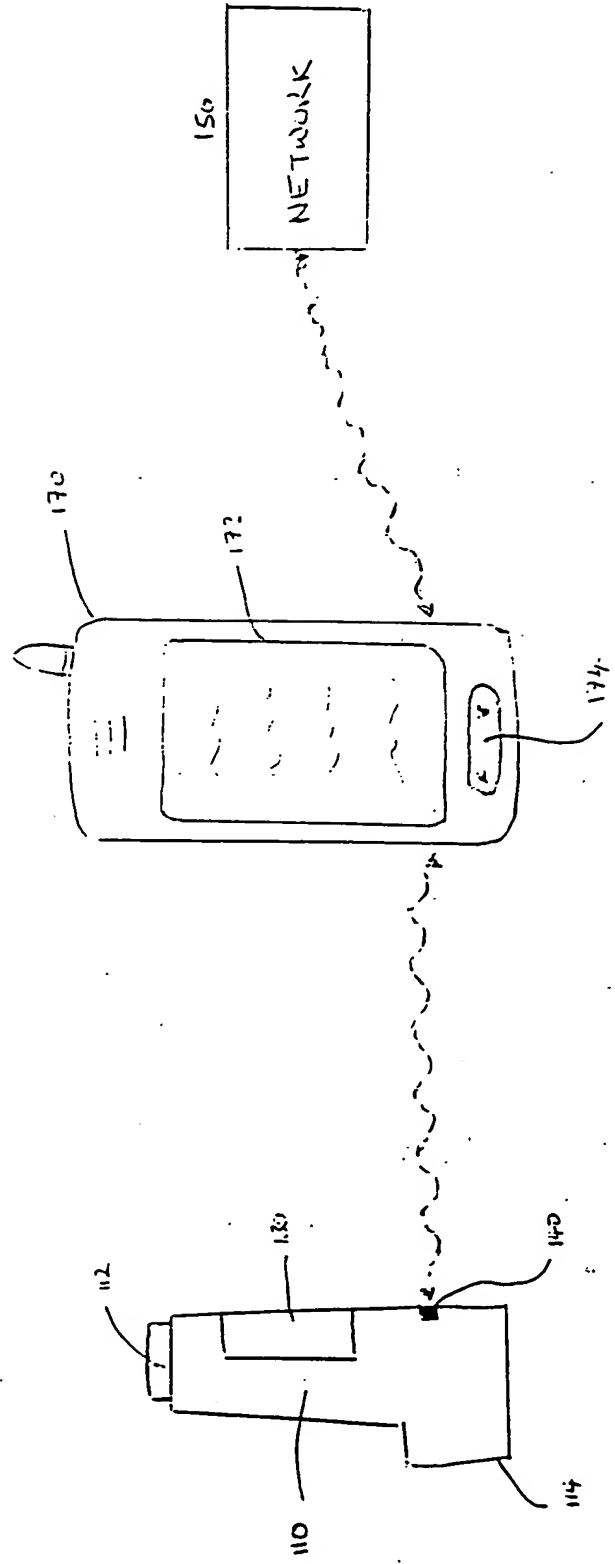
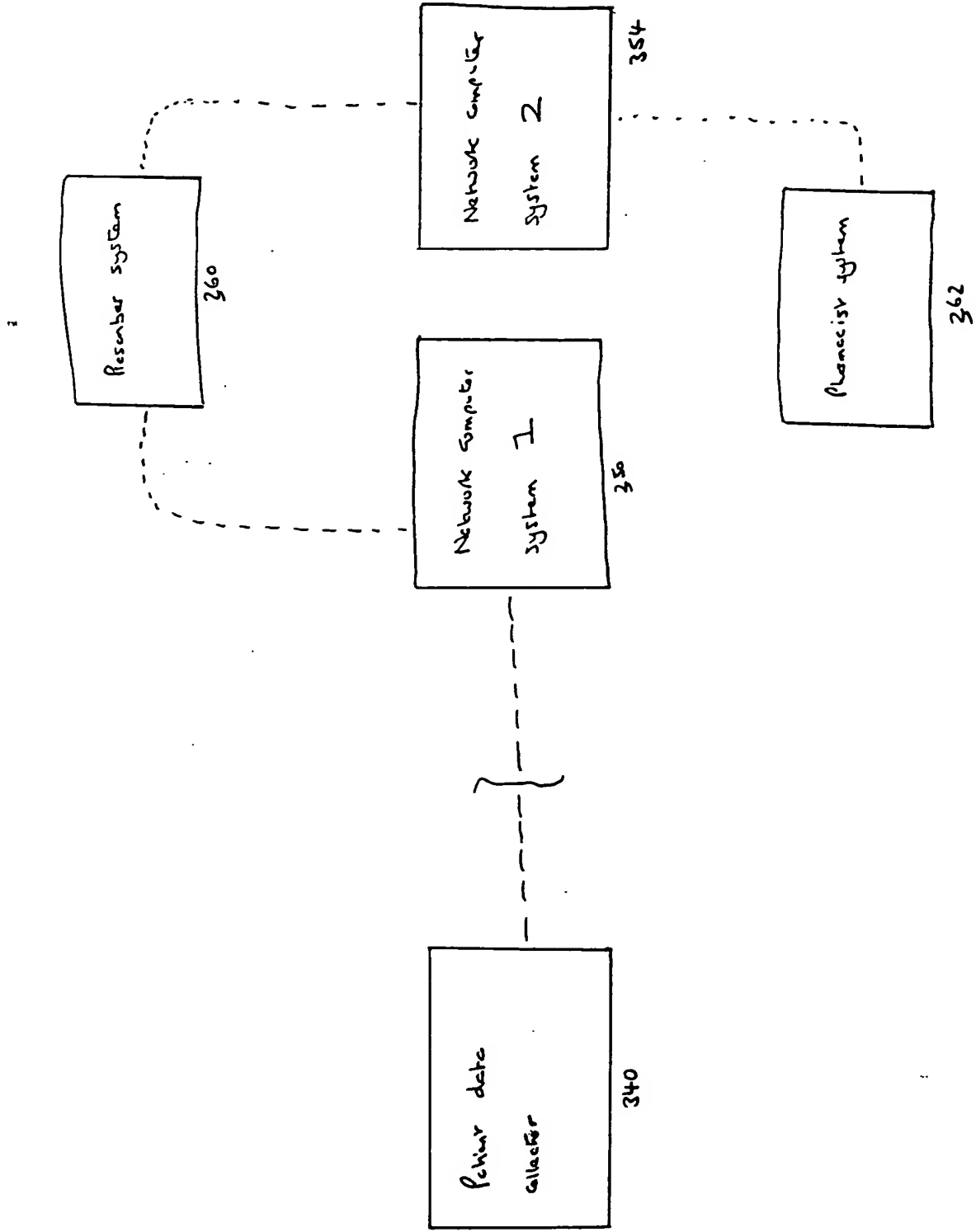


Fig 4.

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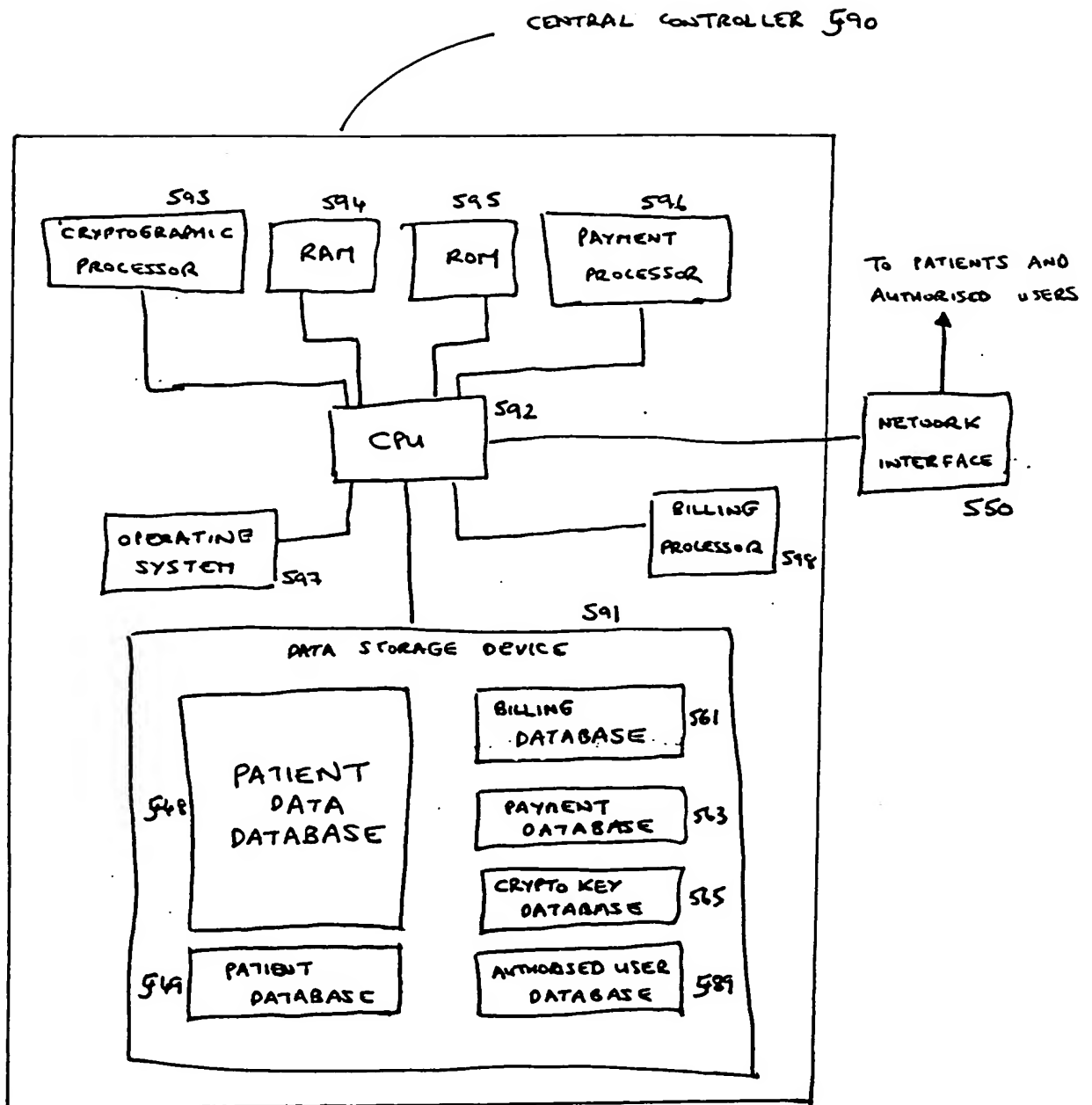


Fig. 6

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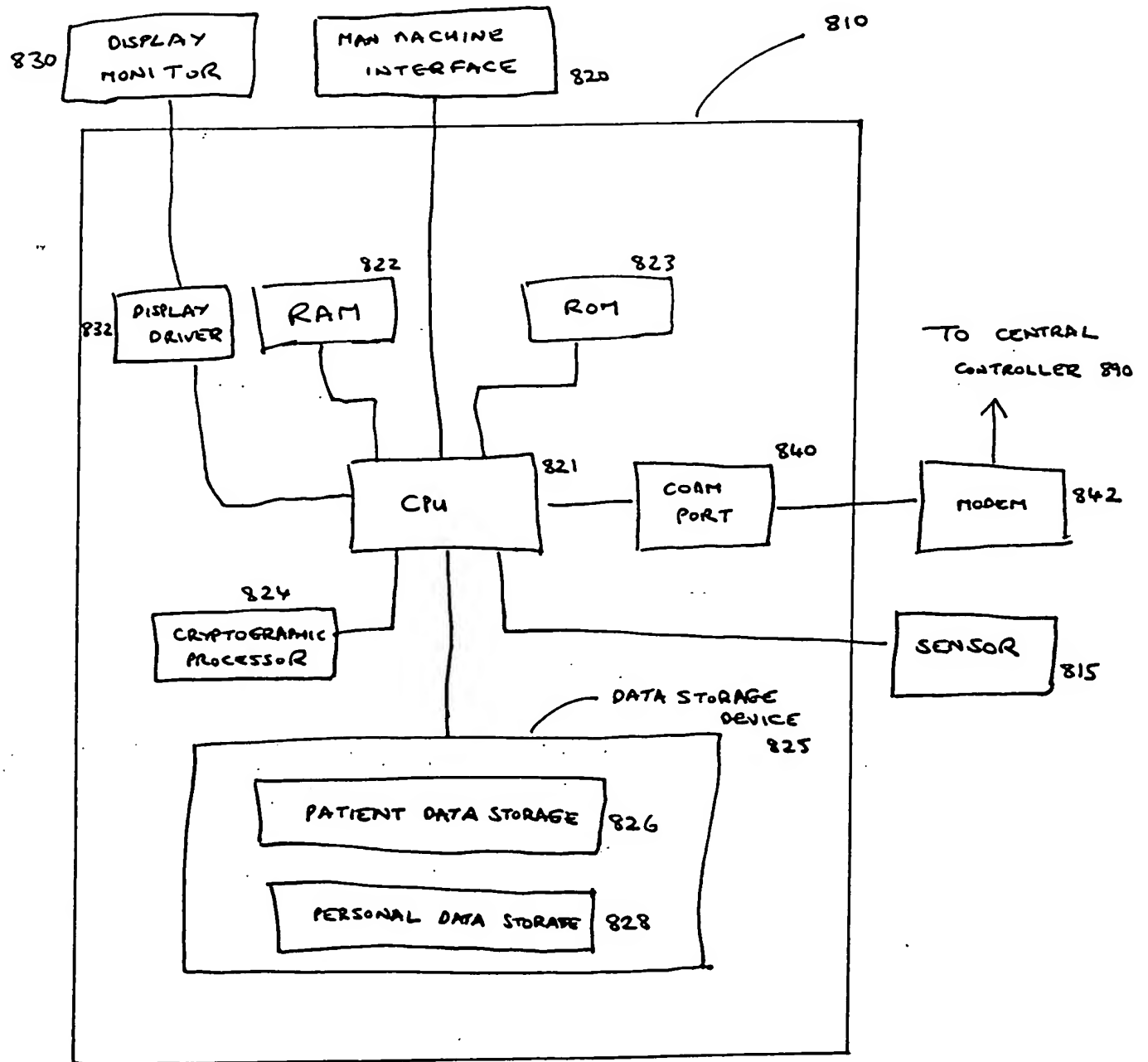


Fig 9.

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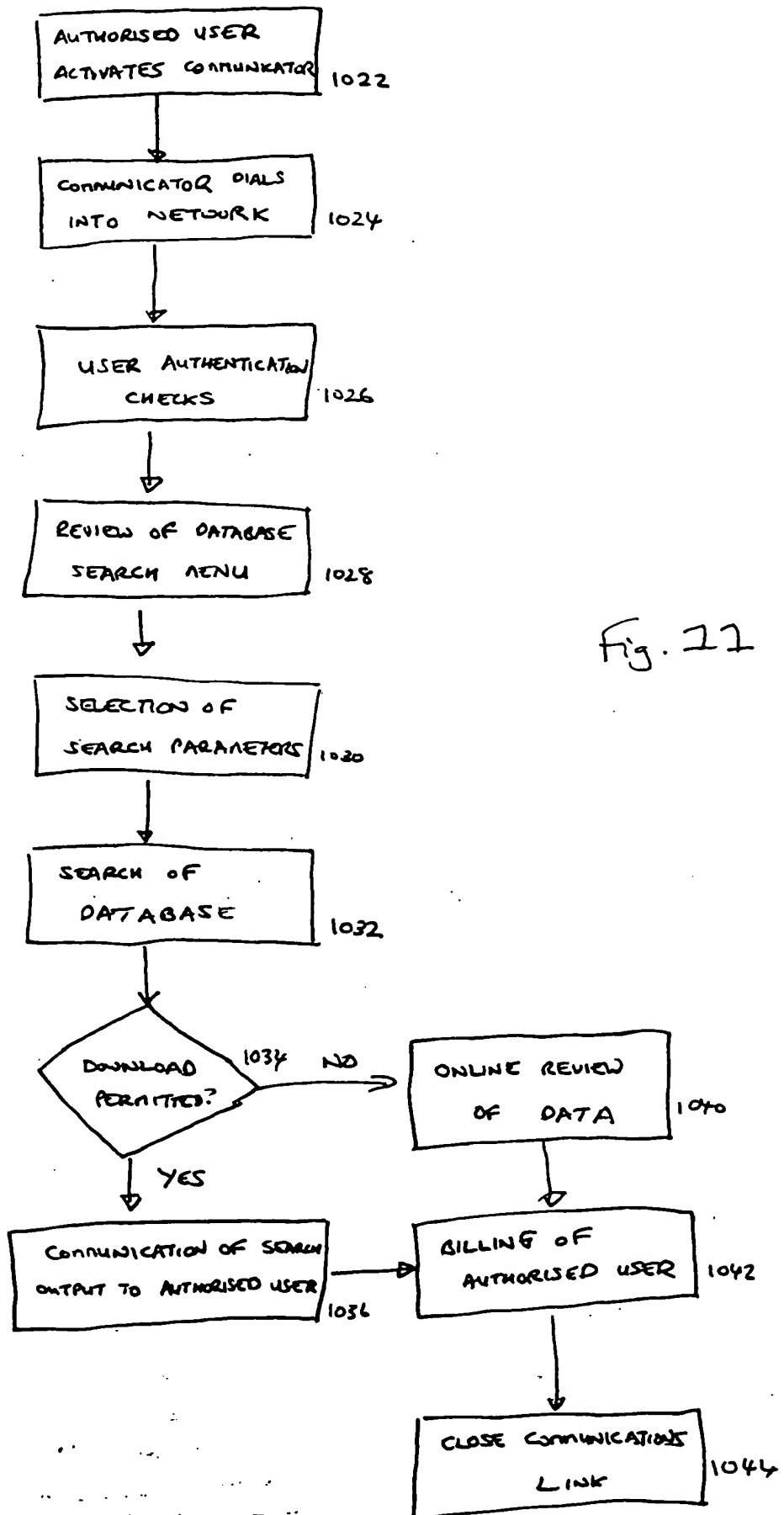


Fig. 11